

ABSTRACT

A gas processing chamber for treating a gas stream containing an oxidant and carbon particles, having a gas inlet port for receiving the gas stream from a high temperature processing chamber, a gas outlet port for exhausting the processed gas stream, a microwave source for introducing microwave energy into the gas processing chamber having a sufficient power to induce the carbon to react with the oxidant, a microwave waveguide to direct the microwave energy at the gas stream for processing, a reflected microwave power dump for protecting the microwave source from reflected microwave power, and a window seal to separate the gas stream from the microwave source.

[illegible]